



IMPACT>STIK™

User Manual



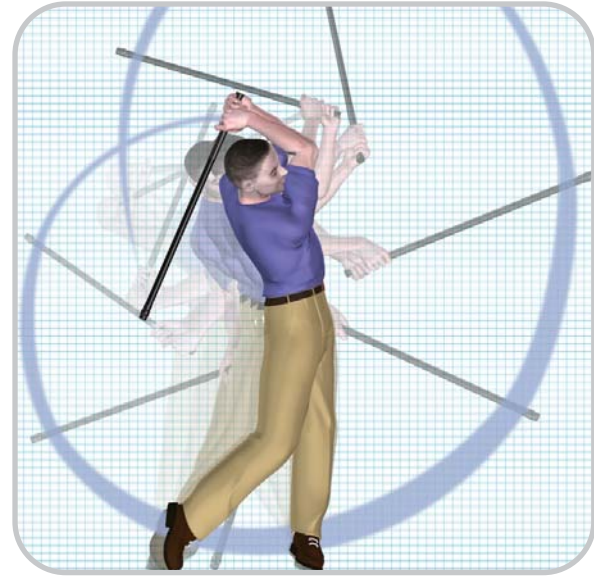


BEFORE you attempt to teach yourself the golf swing, we highly recommend that you consult a good teaching professional for an overall evaluation of your swing. In the long run, you will save yourself a lot of time, energy and frustration. Because of the extremely complex nature of the golf swing, even the best golfers will run into unexpected bad habits. There is a saying, "practice does not make perfect, practice makes permanent. Perfect practice makes perfect." You need the trained eye of a professional teacher to see the subtle swing anomalies that can plague your golf swing. No other sport requires as much attention to detail and precision as does the golf swing.

CAUTION:

Before you start to swing the ImpactStik

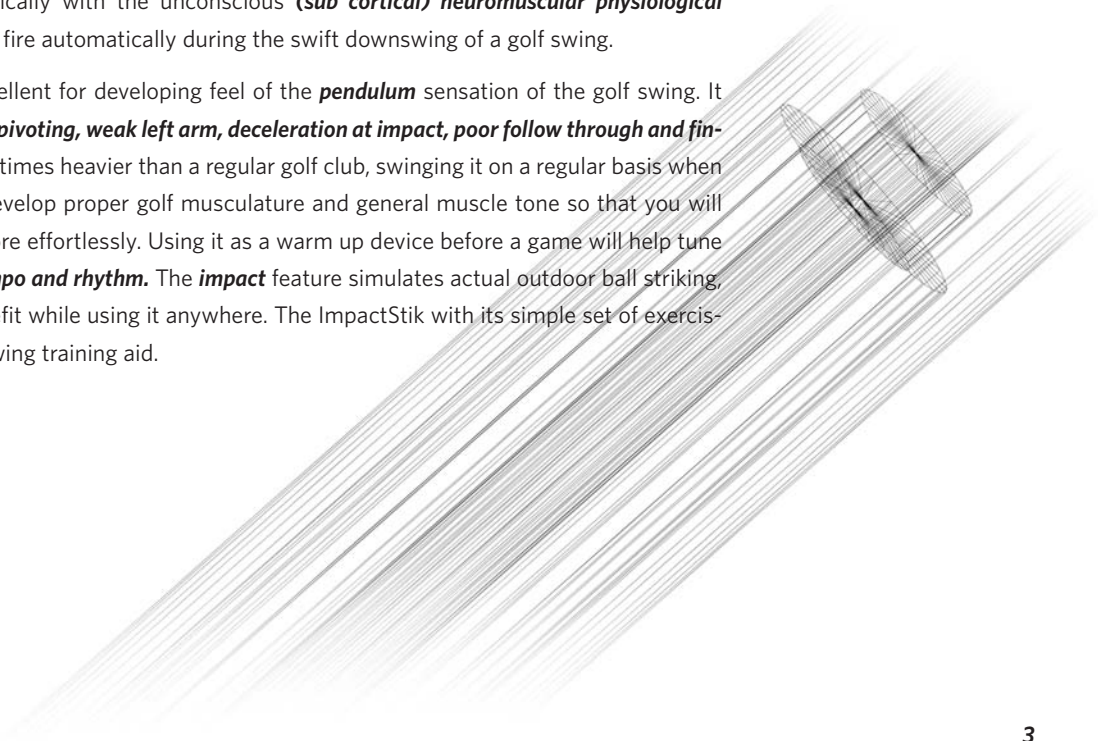
- If you have any medical conditions such as back problems, tendonitis in any of your joints, shoulder joint problems, etc., please consult a medical professional first. The golf swing can aggravate these conditions.
- Make sure there is nobody near you when you are swinging the ImpactStik. Make especially sure that there is nobody standing in the direction of your swing. Serious bodily injury could result if you strike someone with the ImpactStik.
- The ImpactStik weighs approximately 2 pounds. It is about 2 times heavier than a regular golf club. There is a sliding weight mechanism that accelerates very rapidly, generating inertial energy. A serious amount of momentum force is generated when swinging the ImpactStik.
- Never strike balls with the ImpactStik.
- Never strike the ground with the ImpactStik. Swing the ImpactStik 1-2 inches above the ground. The internal mechanism could get damaged if you repeatedly strike the ground with the ImpactStik.
- Do not dent the tubing of the ImpactStik. Dents on the tubing will interfere with the internal mechanism of the stick. If the tubing is dented, replace the ImpactStik immediately with a new one.
- Do not attempt to open or repair the ImpactStik. If you try to repair it, you may alter the safety features designed into the stick. Swinging an incorrectly repaired ImpactStik could be potentially dangerous to you and people around you.



The Mechanical Design of the ImpactStik

The ImpactStik is designed with the correct physics for improving a golfer's swing. By utilizing a **sliding weight mechanism**, the ImpactStik provides a special type of **progressive resistance** that helps a golfer develop a natural feel for an accelerating golf club. Because the physics of the mechanics are correct, the ImpactStik works more synergistically with the unconscious **(sub cortical) neuromuscular physiological reflexes** of the human body, which fire automatically during the swift downswing of a golf swing.

The ImpactStik mechanism is excellent for developing feel of the **pendulum** sensation of the golf swing. It corrects **outside-in swings, reverse pivoting, weak left arm, deceleration at impact, poor follow through and finish**. Because the ImpactStik is two times heavier than a regular golf club, swinging it on a regular basis when you are off the course will help develop proper golf musculature and general muscle tone so that you will strike the ball more solidly and more effortlessly. Using it as a warm up device before a game will help tune your swing and set your **swing tempo and rhythm**. The **impact** feature simulates actual outdoor ball striking, so that you can get the same benefit while using it anywhere. The ImpactStik with its simple set of exercises is a remarkably effective golf swing training aid.





Variable Center of Gravity, Progressive Resistance, and Human Neuromuscular Physiology

The ImpactStik was designed to work synergistically with human neuromuscular physiology. Human body movements are controlled by both our conscious (**cortical**) and unconscious (**subcortical**) minds. Our conscious (**cortical**) mind, which operates up to approximately 0.6 second, cannot attend the event of the **downswing** which happens in approximately 0.25 second. For this reason, the golf **downswing** is mostly controlled and performed by our unconscious (**subcortical**) mind. Most amateur golfers cannot recall what actually happens during **impact**.

This fact—that the golf swing is performed mostly by our unconscious mind—is the reason why it is so difficult to learn the golf swing.

Our unconscious mind, which operates under different rules than our conscious mind, functions via pre-programmed muscle firing sequences commonly known as “muscle memory”. These “muscle memories” can only be reprogrammed by neuromuscular stimulation.

The innovative design of the ImpactStik provides the mechanical attributes necessary to correctly effect powerful changes at the **subcortical neuromuscular level**.



Familiarize yourself with the ImpactStik

“Center of gravity” feel

- Get into a normal golf stance.
- Hold the ImpactStik close to the very end of the handle, in your usual golf grip.
- At first, swing it slowly and lightly back and forth in front of you to experience a sliding weight sensation. (You will feel a weight sliding down the tube shaft as you swing, and then quickly retract back).
- After a few of these loose back and forth swings, re-grip your hands on the handle of the ImpactStik, holding it an inch shorter (choked down). Swing it again back and forth in front of you. The stick should feel lighter and easier to swing. Use more wrist hinge to swing it.

- After a few swings, again re-grip your hands on the handle holding the stick another inch shorter. The stick should feel even lighter. Whip more with your hands and wrists as you swing.
- Keep doing this until you have reached the bottom end of the grip.

By changing your hand position on the grip, you change the **center of gravity** of the ImpactStik. This will affect your swing biomechanics in different ways. By changing your grip position you can change the ratio of hands and wrists, arm, hip, and large body movements.

Impact

Once you have familiarized yourself with feeling the ImpactStik's changing of the **center of gravity**, you are now ready to experience **impact**. Start with an easy "trial" full swing and work up as follows:

- Hold the ImpactStik approximately half way down the grip. Swing easily, and then continue to repeat the swing, increasing your speed each time until you feel a definite **impact** inside the ImpactStik, and hear a distinct **click** or "**whack**" sound. You may try choking down more on the grip if you find it hard to do this. You should also try using more wrist movement in your swing to help achieve **impact**.
- Now, swing it repeatedly 5-10 times, making sure that you **click** it each time.
- Change the position of your grip and swing it 5-10 times. Keep changing your grip position up and down and swing the stick until you notice the difference in changing the **center of gravity** of the ImpactStik as you change your grip position.
- Holding the ImpactStik **longer** requires you to use more hip and large body muscles to swing. It also requires you to do a bigger and fuller swing.
- Holding the ImpactStik **shorter** requires you to use more hands and wrists to swing. It also requires you to do a shorter (three quarter), more compact swing.

You have now familiarized yourself with the feel of **progressive resistance** and the variable **center of gravity** function of the ImpactStik.





Exercises

NOTE: *The exercises are described for a right-handed player.*

Left-handed players should transpose as appropriate.



Exercise 1 - Wrist loosening exercise

- Hold the ImpactStik by the grip and get into a normal square stance.
- Grip down on the stick. The ImpactStik should feel lighter the further down you hold it on the grip.
- Using mostly your wrists and hands, swing the stick back and forth gently in front of you in a rhythmic fashion. **Do less than a half swing.** Use no power in this exercise. You don't need to **click** it.

The point of this exercise is to loosen your hands and to learn to cock your wrists. It is also to learn to feel the correct pathway or **biomechanics** of your hands, wrists, and arms.

- In your half backswing, try and keep your left elbow straight and rigid and cock your wrists as much as you can. Bend your right elbow and tuck it tightly against your right oblique stomach muscle. The ImpactStik should point straight upwards or more.
- In your downswing and follow through, start bending your left elbow just after you pass the impact area. Make sure your left elbow is tucked tightly against your left oblique stomach muscle. Do not pull your elbow backwards behind the body. Flip your left forearm upwards. The right arm and elbow should start to straighten out near the impact area and fully straighten out as you follow through two to three feet beyond the impact area. Your right hand should **roll over (pronate)** the left hand during follow through. The wrists should be fully cocked by the end of the follow through. The ImpactStik should point straight upwards or more.



- The left and right arms and elbows should mirror each other in the backswing and follow through positions.
- You should feel the internal weight sliding down the tube just a little and retracting back.

After performing this exercise 10 to 15 times, your hands and wrists should feel nice and relaxed. You are now ready to start with half swings.



Exercise 2 - Restrictive Half Swing

- Position yourself in a normal square stance or narrow your stance just a little into a pitching stance.
- Grip down on the grip until the ImpactStik feels light and easy to swing.
- Raise the ImpactStik straight up in front of you by cocking your wrists until it is vertical.
- Maintaining the ImpactStik in this vertical position, turn your whole body backwards into a half backswing.
- Starting with a left hip slide, swing down and through the impact point. Make sure your swing path is inside-out. You should follow through vigorously two to three feet beyond the ball.
- The mechanics of the ImpactStik will cause your arms and body to accelerate through and beyond the impact zone. It helps you swing through the ball.
- Try to pull with your left arm and shoulder during the down swing. Keep your right shoulder back and behind at the beginning of the downswing.
- When you swing down keep your right elbow tucked tightly against your right oblique stomach muscle.
- Push your right shoulder down and under as you pull up with your left shoulder.
- Perform a full follow through and finish. Hold your finish position for a few seconds.



You will notice that using your wrists to whip the stick causes it to **click** more easily. Once you are able to produce **impact**, repeat the exercise 10 to 15 times.

This exercise restricts your backswing and forces you to cock your wrists. It trains you to deliver your power nearer the ball and follow-through area, rather than waste your energy prematurely in a big back swing. It also helps prevents **casting your club**. It helps you to utilize the force of pendular momentum to strike a golf ball. It helps to build the **core motion module** of the golf swing.



Exercise 3 - Left Arm Swing

- Set a golf club on the ground and position it in a 15-25 degree inside-out swing plane path. Position yourself in a normal square stance.
- If you have an outside-in swing problem, pull your right foot back about 2-5 inches from a normal square stance.
- Hold the ImpactStik with just your left hand. Choke down to the bottom end of the grip until the stick feels light and comfortable to swing.
- Use the fingertips of your right hand to help hold the ImpactStik by placing them on the stick 3-5 inches away from your left hand.
- Now turn fully into a backswing position, making sure that;
 - 1) your left shoulder is pointing downwards at the ball position
 - 2) your hips have turned fully
 - 3) you have shifted your body weight to your right side
 - 4) left elbow is straight and rigid as possible
 - 5) your left wrist is fully cocked
 - 6) and your head is looking down at an imaginary ball
- Practice getting into this position a few times.
- Once you can easily get into the backswing position, swing down the ImpactStik, gently at first, following along the inside-out path set by the golf club on the ground.



- Let go of the stick with your right hand as you pull down with your left hand.
 - Make sure that you initiate the downswing by sliding your left hip laterally to the left. Tuck your butt in as you slide to the left.
 - Bend your left elbow and flip your forearm and hand upwards. Cock your left wrist as you follow through. Make sure that you don't pull your left elbow back behind your body. To make sure you don't, try a few slow swings with the back of your right hand placed behind your left elbow for support.
 - Swing the stick upwards into a high upward finish. Your body weight should be fully shifted to your left side at the finish of the swing. Make sure that you lock your left knee as you swing the stick through the impact area and follow through.
 - You should **click** the stick approximately where the ball would be. Your hands should be 1-2 inches ahead of the end of the stick when it **impacts**. Your hands should be releasing around the region of your left thigh near your left pocket.
 - Make sure you are swinging on an inside-out swing path.
 - Gradually swing more vigorously when you feel more comfortable with the stick, making sure that you lead the movement with your left hip and shoulder.
- This exercise teaches you to swing with your left arm. It also strengthens your entire left side group of muscles. It ultimately develops a proper balance of left and right side muscle strength. This exercise also helps prevent right side loading, which causes **reverse pivoting**.



Exercise 4 - Right Arm Swing

- Set a golf club on the ground and position it in a 15-25 degree inside-out swing plane path. Position yourself in a normal square stance.
- If you have an outside-in swing problem, pull your right foot back about 2-5 inches. With your left hand hold the ImpactStik on the top end of the grip.
- With your right hand hold the handle on the bottom end of the grip.
- In this separated hand grip position, your left shoulder will be high and your right shoulder low in your address.
- Make sure your shoulders are square to the target line. Keep your right elbow tucked close to your body.
- Now turn your body into a backswing position. Your left shoulder should point down at the ball position and your left arm should be as straight as possible.
- Cock your wrists and then swing down, plunging your right shoulder down low as you pull up your left shoulder. Keep your right elbow close to your body and ahead of your right hand during the downswing.
- Fully extend your right arm as you swing through impact. Make sure you keep your head down.



- You should feel your right shoulder and torso plunging down and under your left shoulder.
- You should **click** the stick approximately where the ball should be. Your hands should be 1-2 inches ahead of the end of the stick when it **impacts**. Make sure you are swinging on an inside-out swing path. Swing 10-15 times.

This exercise helps you learn the correct pathway of the right shoulder and arm. It helps prevent **early pull out** from your swing.



Exercise 5 - Two Arm Swing

Now let's put everything together and practice a regular full swing.

- Set a golf club on the ground and position it in a 15-25 degree inside-out swing plane path. Take a normal square stance.
- If you have an outside-in swing problem, pull your right foot back about 2-5 inches.
- Hold the ImpactStik with a normal two-handed golf grip.
- Start by holding it near the bottom end of the grip. Holding the ImpactStik in this position moves the center of gravity closer to the hands and wrists, giving the body the sensation of the stick being lighter. This makes it easier to hinge your wrists.
- Start with easy, smooth half swings. Half swings will teach you the bare, essential movements and muscle-firing sequence to make good ball contact. The half swing is the **core motion module** of the golf swing. Try to deliberately slow down your movement and swing in a slower tempo.

The purpose of the ImpactStik is to groove a swing that is efficient in motion and energy. If you can **click** the ImpactStik with the least amount of effort and economy of movement, you will develop a more stable and repeatable swing. If you start to swing hard in the beginning, you will continue to reinforce bad habits. A good golf swing is always relaxed and seemingly effortless.

If you have bad swing habits, slowing down your **swing tempo** helps to re-groove new **muscle memory**.

- Make sure you are swinging on an inside-out swing path. Always lead the downswing by laterally moving your left hip first. Then tuck your butt in as your arms and hands start to pull down. You will notice that you have to use more wrists to successfully click the stick. Make sure your hands are in the region of your left thigh when "impact" occurs. Your hands should be 1-2 inches ahead of the end of the stick when it impacts.
- Swing through the impact point. The momentum of the sliding weight should pull your whole body into a full follow through and finish.



- Make sure your lower body is firmly planted throughout the swing. If you experience **lower body float**, bend your knees more and maintain flexion throughout the swing.
- Try and relax your body as the stick pulls your arms and body into the follow through position. Find your balance at the finish of your swing and hold yourself in that position for 3-5 seconds. Swing 10-20 times.
- Swing in front of a mirror and check to see if you are swinging correctly. If you are not sure of what a good swing is, consult a teaching professional.

Once you can easily make half swings and **clicking** the ImpactStik feels effortless, focus on swinging with **control and authority**.

- **Squeeze the grip firmly as you approach impact.** Try to be very firm and deliberate with the motion of your hands and wrists through and beyond impact. **Gripping firmly** as you **impact** the ImpactStik triggers and grooves **subcortical** muscle firing patterns for the hands and wrists. This is one of the most valuable features of the ImpactStik. Most amateurs relax their hand-

grip pressure during impact, thereby, losing up to 30 percent of clubhead acceleration power. This results in poor power transference of clubhead to ball.

You can now progress to making fuller swings.

- Grip the ImpactStik a little bit longer. You will notice the stick will feel heavier. Start incrementally extending more of your backswing. If you feel your **body kinesthetic linkage** break down (losing your groove), then go back to your shorter **core motion module** swing.
- Continue to swing smoothly and with authority. Grip the ImpactStik longer and longer. You will use a little bit less wrist motion as you hold it longer. You will also notice that you engage more of the lower body muscles.

Your swing should feel compact and efficient. After 10-15 vigorous full swings holding the ImpactStik at full length, grip the handle short again and finish off by swinging easy 10-15 times.

Pre-Game Warm Up Exercises

You can perform any combination of exercises for pre-game warm up. The only thing is not to over exercise. Only perform 5-7 swings of each exercise. If you fatigue your muscles by warming up excessively, you may find it affecting your golf game adversely.

Transition to Swinging...

- The first time you swing a regular golf club after practicing with an ImpactStik, you will notice that the golf club feels almost weightless. You will notice a big increase in clubhead acceleration through impact. However, the new power is so unexpected that your body and mind do not know how to deal with it. You need a few days to process and incorporate the new power into your swing. It is different for every individual.
- This transitional adaptation to a golf club occurs **only at first**. After a few days, you won't notice any adjustment issues.
- A good way to help make an easier transition is to initially use easy, slow tempo swings with your golf club. Don't try to hit the ball hard to begin with. You will notice that your hands and wrists seemingly fire all by themselves at the impact area.
- You will also notice that your body accelerates through impact and follow-through more powerfully. This will cause you to lose your balance at times. Slow down your swing.
- Get used to the new way your body delivers power to your shots before you start to swing hard. Think of performing slightly slower-tempo, smooth swings.

- After a few days, your conscious mind and unconscious mind will have processed and learned how to deal with the **progressive resistance** that is produced by the ImpactStik.
- If you perform heavy sets of exercises with the ImpactStik, you need to rest your muscles a day or two before you hit golf balls. Fatigued muscles will cause **biomechanical** swing failure.
- Sudden hard, strenuous exercising could cause the balance of your golf swing **biomechanics** to change too suddenly. You may experience errant shots. For this reason, perform moderate sets of exercises and plan on improving your swing gradually over an extended period of time.
- The exercises presented above are only some of the things you can do with the ImpactStik. By no means are they the only ones you can do. Feel free to explore other ways to exercise with it.
- Again, we stress that you consult your local teaching professional to help you monitor your swing improvements. If used wisely in conjunction with some good golf lessons, the ImpactStik will help you develop a consistent and powerful, enduring golf swing.

Enjoy.





Kellion Corporation
Rochester, New York

email: info@kellion.com
www.kellion.com

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